Pleiades BeeGFS Filesystem

A solid state drive (SSD)-based BeeGFS filesystem, /nobackupp3, is in early stages of testing with a few users. Currently, it is only accessible from Pleiades front-end systems (PFEs) and compute nodes. The compute nodes on Electra or Aitken cannot access this filesystem.

The total space on /nobackupp3 is 192 terabytes (TB) with 16 stripes, each with a maximum of 12 TB. With its current configuration, you cannot set or change the stripe counts. Quota limits may be enabled in the future.

To view information about the filesystem, run:

% beegfs-ctl --listtargets --cfgFile=/etc/beegfs/beegfs-nbp3.conf --longnodes --spaceinfo % beegfs-ctl --listtargets --cfgFile=/etc/beegfs/beegfs-nbp3.conf --state --longnodes

WARNING: There is no failsafe mechanism for /nobackupp3. If one SSD fails, the data it contains cannot be recovered. Therefore, use Shift to copy any files you want to keep to your Lustre /nobackup filesystem (for temporary storage) or to Lou (for long-term storage). Be sure to properly stripe data copied to Lustre.

Using /nobackupp3

To use /nobackupp3 in a PBS job, you must ensure that it is mounted on all compute nodes before the job starts. To do so, include it as a needed site in your PBS script. For example, the following line mounts /nobackupp3, along with /home1 and /nobackupp8:

#PBS -I site=needed=/home1+/nobackupp3+/nobackupp8

Important: A job requesting Broadwell nodes might be run on Electra's Broadwell nodes instead of Pleiades. To run a job that uses Broadwell nodes and accesses /nobackupp3, you must specify Pleiades Broadwell nodes by using #PBS -l site=static_broadwell. For example:

#PBS -l select=xx:ncpus=28:mpiprocs=28:model=bro

#PBS -I site=static_broadwell

#PBS -l site=needed=/home1+/nobackupp3+/nobackupp8

For more information, see **BeeGFS Basics**.

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